

**REMARKS**

Claims 27–39 are pending in this application. By this Amendment, claims 27 and 36 are amended. The amendment to claim 36 corrects an informality and the amendment to claim 27 is supported, for example, at least in paragraph [0047] of the specification. No new matter is added. Applicants respectfully request reconsideration and prompt allowance in view of at least the following remarks.

The Office Action rejects claims 27–31, 35, 38 and 39 under 35 U.S.C. §102(b) as anticipated by U.S. Patent Application Publication No. 2001/0049047 (Mizuno). Applicants respectfully traverse the rejection.

Mizuno at least fails to disclose "wherein the adhesive layer has a Young's modulus within the range of 30 MPa to 100 MPa," as recited in claim 27. Rather, Mizuno discloses an adhesive used for bonding an electrolyte film 21 to separators 24 and 25 that has a modulus of elasticity of not greater than 10 MPa (Mizuno at paragraph [0068]). Mizuno further discloses that the modulus of elasticity of the adhesive is more preferably not greater than 5 MPa after cure (Mizuno at paragraph [0068]). Mizuno discloses that the peeling strength of the adhesive drastically increases when the modulus of elasticity of the adhesive layer is less than 20 MPa and reaches the highest strength when the modulus of elasticity is not greater than 5 MPa (Mizuno at paragraph [0070]). At these values of the modulus of elasticity, Mizuno discloses that there is sufficient adhesive strength between the electrolyte film 21 and the separators 24 and 25 (Mizuno at paragraph [0071]). Based on the above, Mizuno clearly does not disclose, "wherein the adhesive layer has a Young's modulus within the range of 30 MPa to 100 MPa," as recited in claim 27.

The Office Action refers to Fig. 8 of Mizuno and alleges that Fig. 8 discloses an adhesive with a modulus of elasticity of 2 to 50 MPa. However, the Office Action mischaracterizes Fig. 8. Fig. 8 merely illustrates the peeling strength versus the modulus of

elasticity of an adhesive layer. Fig. 8 is provided to discuss why the adhesive that is used to bond the electrolyte film 21 to separators 24 and 25 has a modulus of elasticity of not greater than 10 MPa because as the modulus of elasticity increases, the peeling strength decreases. Thus, Fig. 8 of Mizuno does not disclose an adhesive layer for use in a fuel cell stack with a modulus of elasticity of 2 MPa to 50 MPa as the Office Action alleges.

Moreover, because Mizuno discloses that the "adhesive used in the embodiment has the modulus of elasticity of not greater than 10 MPa or more preferably not greater than 5 MPa," the disclosure of Mizuno clearly teaches away from the claimed invention. *See* M.P.E.P. §2141.02(VI). A skilled artisan would be discouraged from using an adhesive with a modulus of elasticity of greater than 10 MPa based on (1) Mizuno disclosing that the modulus of elasticity is "not greater than" 10 MPa and (2) its implication that anything greater than 10 MPa would be insufficient for use in a fuel cell.

Accordingly, claim 27 is patentable over Mizuno. As claims 28–31, 35, 38 and 39 depend from claim 27, these dependent claims are patentable, for at least the same reason, as well as for the additional features they recite. Applicants respectfully request withdrawal of the rejection.

The Office Action rejects claims 32–34 under 35 U.S.C. §103(a) over Mizuno in view of U.S. Patent No. 6,316,139 (Uchida) and rejects claims 36 and 37 under 35 U.S.C. §103(a) over Mizuno in view of U.S. Patent Application Publication No. 2004/0142226 (Yamauchi). Applicants respectfully traverse the rejection.

These rejections are premised upon the presumption that Mizuno discloses all of the features of claim 27. Because, as discussed above, Mizuno does not disclose all of the features of claim 27, the rejections are deficient for at least the same reason. Applicants respectfully request withdrawal of the rejections.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the claims are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

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